

CLAIMS

What is claimed is:

1. A method in a network of data processing systems for optimizing the efficiency with which a serial electronic publication is distributed to subscribers, said method comprising:

electronically transmitting a first issue of a serial electronic publication to a subscriber;

determining whether said first issue has been opened by said subscriber; and

electronically transmitting a second issue of said serial electronic publication to said subscriber only after determining that said first issue has been opened.

2. The method of claim 1, wherein:

said step of electronically transmitting said issue comprises electronically transmitting said issue to a client data processing system associated with said subscriber; and

said step of determining whether said first issue has been opened comprises receiving a status update from said client data processing system indicating that said first issue has been opened.

1 3. The method of claim 2, wherein:

2 said method further comprises storing a subscriber
3 status in accordance with said status update, in response
4 to receiving said status update from said client; and

5 said step of determining whether said first issue
6 has been opened is performed with reference to said
7 subscriber status, such that said subscriber status
8 enables said determination to be performed without
9 communicating with said subscriber after said first issue
10 has been transmitted.

1 4. The method of claim 3, wherein:

2 said method further comprises determining that a
3 publication time for initiating distribution of an issue
4 of said serial electronic publication has been reached;
5 and

6 said step of determining whether said first issue
7 has been opened is performed in response to said
8 determination that said publication time has been
9 reached.

1 5. The method of claim 3, wherein:

2 said step of transmitting said first issue comprises
3 transmitting a hypertext transfer protocol (HTTP) cookie
4 to said subscriber with said first issue; and

5 said step of receiving said status update comprises
6 receiving a cookie response from said subscriber
7 indicating that client software has been utilized to open
8 said first issue.

6. The method of claim 3, wherein said step of receiving said status update comprises receiving, at a server data processing system, a hypertext transfer protocol (HTTP) function for storing said subscriber status.

7. The method of claim 2, further comprising:
determining that a publication time for initiating distribution of an issue of said serial electronic publication has been reached; and
automatically transmitting a status request to said subscriber in response to said determination that said publication time has been reached;
wherein said step of receiving said status update comprises receiving, from said subscriber, a status reply that corresponds to said status request and comprises said status update.

1 8. A data processing system with facilities for
2 transmitting a serial electronic publication to
3 subscribers efficiently, said data processing system
4 comprising:

5 a push engine that electronically transmits a first
6 issue of a serial electronic publication to a subscriber;
7 and

8 a status manager that determines whether said first
9 issue has been opened by said subscriber, and that allows
10 said push engine to transmit a second issue to said
11 subscriber only after determining that said first issue
has been opened.

12 9. The data processing system of claim 8, wherein:

13 said data processing system comprises a server data
14 processing system;

15 said push engine transmits said first issue to said
16 subscriber by transmitting said first issue to a client
17 data processing system associated with said subscriber;

18 said server data processing system includes an input
19 module that receives a status update from said
subscriber; and

20 said status manager determines whether said first
21 issue has been opened by reference to said status update.

1 10. The data processing system of claim 9, wherein:
2 said server data processing system comprises storage
3 for storing a subscriber status that corresponds to said
4 status update in response to receipt of said status
5 update; and
6 said push engine determines whether said first issue
7 has been opened by reference to said subscriber status,
8 such that said subscriber status enables said
9 determination to be performed without communicating with
10 said subscriber after said first issue has been
11 transmitted.

12 11. The data processing system of claim 10, wherein:
13 said server data processing system includes a timer
14 that indicates when a publication time for initiating
15 distribution of an issue of said serial electronic
16 publication has been reached; and
17 said push engine determines whether said first issue
18 has been opened in response to said indication of said
19 timer.

20 12. The data processing system of claim 10, wherein:
21 said push engine transmits a hypertext transfer
22 protocol (HTTP) cookie to said subscriber with said first
23 issue;
24 said status update comprises a cookie response
25 received from said subscriber; and
26 said cookie response corresponds to said HTTP cookie
27 and indicates that client software has been utilized to
28 open said first issue.

13. The data processing system of claim 10, wherein said status update comprises a hypertext transfer protocol (HTTP) function, received at said server data processing system, for storing said subscriber status at said server data processing system.

14. The data processing system of claim 9, wherein:
said server data processing system includes a timer that indicates when a publication time for initiating distribution of an issue of said serial electronic publication has been reached;
said status manager automatically transmits a status request to said subscriber in response to said indication of said timer;
said input module receives a status reply from said subscriber that corresponds to said status request; and
said status reply comprises said status update.

1 15. A program product for efficiently transmitting a
2 serial electronic publication from a server data
3 processing system to subscribers, said program product
4 comprising:

5 a push engine that electronically transmits a first
6 issue of a serial electronic publication from a server
7 data processing system to a subscriber; and

8 a status manager that determines whether said first
9 issue has been opened by said subscriber, and that allows
10 said push engine to transmit a second issue to said
11 subscriber only after determining that said first issue
12 has been opened; and

13 a computer usable medium encoding said push engine
14 and said status manager.

15 16. The program product of claim 15, wherein:

16 said push engine transmits said first issue to said
17 subscriber by transmitting said first issue to a client
18 data processing system associated with said subscriber;

19 said computer usable medium also encodes an input
20 module that receives a status update from said
21 subscriber; and

22 said status manager determines whether said first
23 issue has been opened by reference to said status update.

1 17. The program product of claim 16, wherein:

2 said computer usable medium also encodes
3 instructions for allocating storage in said server data
4 processing system for storing a subscriber status that
5 corresponds to said status update;

6 said status manager stores said subscriber status in
7 said storage in response to receipt of said status
8 update; and

9 said push engine determines whether said first issue
10 has been opened by reference to said subscriber status,
11 such that said subscriber status enables said
12 determination to be performed without communicating with
13 said subscriber after said first issue has been
14 transmitted.

15 18. The program product of claim 17, wherein:

16 said server data processing system includes a timer
17 that indicates when a publication time for initiating
18 distribution of an issue of said serial electronic
19 publication has been reached; and

20 said push engine determines whether said first issue
21 has been opened in response to said indication of said
22 timer.
23
24
25
26
27
28

1 19. The program product of claim 17, wherein:
2 said push engine transmits a hypertext transfer
3 protocol (HTTP) cookie to said subscriber with said first
4 issue;
5 said status update comprises a cookie response
6 received from said subscriber; and
7 said cookie response corresponds to said HTTP cookie
8 and indicates that client software has been utilized to
9 open said first issue.

1 20. The program product of claim 17, wherein said status
2 update comprises a hypertext transfer protocol (HTTP)
3 function, received at said server data processing system,
4 for storing said subscriber status at said server data
5 processing system.

1 21. The program product of claim 20, wherein:
2 said server data processing system includes a timer
3 that indicates when a publication time for initiating
4 distribution of an issue of said serial electronic
5 publication has been reached;
6 said status manager automatically transmits a status
7 request to said subscriber in response to said indication
8 of said timer;
9 said input module receives a status reply from said
10 subscriber that corresponds to said status request; and
said status reply comprises said status update.